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Serial No. 09/885471

IN THE UNITED STATES
PATENT AND TRADEMARK OFFICE

PATENT APPLICATION

Inventor(s): **Sang-Wook Cheong**
Namjung Hur
 Case: **5-1**
 Serial No.: **09/885471**
 Filing Date: **June 20, 2001**
 Examiner: **E. Fuller** Group Art Unit: **1762**
 Title: **MgB₂ Superconductors**

COMMISSIONER FOR PATENTS
 P.O. BOX 1450
 ALEXANDRIA, VA 22313-1450

Certificate
 APR 28 2006
 of Correction

SIR:

CERTIFICATE OF CORRECTION

Enclosed is a request for a Certificate of Correction for U.S. Patent No. 6,878,420 issued on April 12, 2005 requesting a correction to the title of the patent.

In the issued patent, the title is "MGB₂ SUPERCONDUCTORS" rather than "MgB₂ SUPERCONDUCTORS" as shown at page 1 of the filed application (enclosed). The symbol "MG" is incorrect, because "Mg" and not "MG" is the recognized scientific abbreviation for the element "magnesium". Since page 1 of the filed application shows the title correctly, it appears that the U.S. Patent and trademark Office made a printing error. Also enclosed is a copy of the first page of the above patent application.

This is a USPTO error and therefore **no fee** should be due for the filing of this Certificate of Correction.

In the event of any non-payment or improper payment of a required fee, the Commissioner is authorized to charge or to credit **Lucent Technologies Deposit Account No. 12-2325** as required to correct the error.

Respectfully,

John F. McCabe, Attorney
 Reg. No. 42854
 908-582-6866

Date: April 19, 2006

Docket Administrator (Room 3J-219)
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Date of Deposit	<u>April 19, 2006</u>
I hereby certify that this correspondence is being deposited with the United States Postal Service in a First Class Mail envelope on the date indicated above and is addressed to:	
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Signature of person mailing paper or fee	<u>Catherine F. Dugan</u>

MAY 1 2006

**UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION**

Page 1 of 1

PATENT NO. : 6,878,420
APPLICATION NO.: 09/885,471
ISSUE DATE : April 12, 2005
INVENTOR(S) : Sang-Wook Cheong and Namjung Hur

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

At page 1, column 1,

**the title on the above patent application should be changed
from:**

"MGB₂ SUPERCONDUCTORS" to

--MGB₂ SUPERCONDUCTORS --.

MAILING ADDRESS OF SENDER (Please do not use customer number below): **Lucent Technologies
Docket Administrator, Rm. 3J-219
101 Crawfords Corner Road
Holmdel, NJ 07733-3030**

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

MAY 1 2006

MgB₂ SUPERCONDUCTORS

This application claims the benefit of U.S. Provisional Application No. 60/275,067, filed on March 12, 2001.

BACKGROUND

Field of the Invention

This invention relates to superconductors and devices based on superconductors.

5 Discussion of the Related Art

Recently, Akitmitsu et al. discovered that a well-known compound, i.e., MgB₂, exhibits superconductivity at temperatures lower than about 39 Kelvin (K). Powders formed of MgB₂ are produced by chemically reacting magnesium (Mg) and boron (B) at a temperature in the range of about 800° Celsius to about 950° Celsius (C). Powders of
10 polycrystalline MgB₂ in which individual crystalline grains of MgB₂ have diameters in the range of about 1 micron to about 50 microns are available commercially.

SUMMARY

In one aspect, the invention features a solid structure. The structure includes a
15 substrate and a layer located on a surface of the substrate. The layer includes crystalline or polycrystalline MgB₂.

In another aspect, the invention features a process for making a thin-layer device. The process includes providing a solid body of MgB₂ and ejecting MgB₂ from the body by directing laser light onto the body. The process also includes growing a layer on a
20 surface of a substrate from a portion of the ejected MgB₂.

BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 is a magnified view of a portion of a solid polycrystalline body formed of MgB₂;

25 Figure 2 is a flow chart for a process of producing the body of Figure 1;

Figure 3 shows a structure that includes a thin layer of MgB₂;